Listing Of Claims

- 1. (Previously Presented) A control system for a load, the system comprising a first microprocessor having an output to drive one side of a load, a second microprocessor having an output to drive the other side of the load and being arranged to monitor the operation of the load, the system being arranged so that when either microprocessor detects a fault in the control of the load the load is switched off.
- (Original) A system according to claim 1 wherein both microprocessors monitor the current in the load.
- 3. (Previously Presented) A system according to claim 1 wherein a first resistor is connected between a driver output of the first microprocessor and an input of the second microprocessor, to allow the second microprocessor to monitor if the first microprocessor is attempting to turn on the load.
- 4. (Original) A system according to claim 3 wherein a second resistor with a value less than that of the first resistor, is connected between the output of the first microprocessor and a low voltage to ensure a driver controlling the load is off whenever the output of the first microprocessor is in a high resistance state.
- 5. (Previously Presented) A system according to claim 1 wherein at least one of the microprocessors is arranged to calculate the current of the load by measuring the voltage across it and, when the load current does not meet predetermined criteria, to switch out the load.

- 6. (Previously Presented) A system according to claim 1 wherein the control system is a vehicular control system.
- (Previously Presented) A system according to claim 1 wherein the load is a gear box selector, a clutch selector or a valve.

8-16 Cancelled

- 17. (Previously Presented) A system according to claim 1 wherein the second microprocessor also monitors the operation of the first microprocessor, the system being arranged so that when the second microprocessor detects a fault in the operation of the first microprocessor and/or the operation of the load, the second microprocessor is arranged to switch out the load or halt the operation of the first microprocessor.
- 18. (Currently Amended) A control method according to claim [8] 23 wherein the second microprocessor further monitors the operation of the first microprocessor, and wherein when the second microprocessor detects a fault in the operation of the first microprocessor and/or the operation of the load, the second microprocessor switches out the load and/or halts the operation of the first microprocessor.
- 19. (Previously Presented) The control system of claim 1 wherein the second microprocessor also monitors the operation of the first microprocessor, the system being arranged so that when

the second microprocessor detects a fault in the operation of the first microprocessor, the load is switched off.

- 20. (Previously Presented) The control system of claim 17 wherein the second microprocessor switches off the load by halting the operation of the first microprocessor.
- 21. (Currently Amended) The control method of claim $[\theta]$ $\underline{23}$ wherein the second microprocessor is also arranged to detect a fault in the operation of the first microprocessor and to switch off the load in response to detecting a fault.
- 22. (Currently Amended) The method of claim $[\frac{1}{2}]$ $\underline{21}$ wherein the second microprocessor switches off the load by halting the operation of the first microprocessor.
- 23. (New) The method of controlling a load comprising the steps of:

driving one side of the load with a first microprocessor,

driving the other side of the load with a second microprocessor,

monitoring the operation of the load, and
switching the load off when either microprocessor
detects a fault in the control of the load.

- 24. (New) A method according to claim 23 wherein both microprocessors monitor the current in the load.
- 25. (New) A method according to claim 23 wherein the second microprocessor is arranged to monitor if the first microprocessor is attempting to turn the load on by means of a first resistor between the driver output of the first microprocessor and an input of the second microprocessor.
- 26. (New) A method according to claim 25 wherein the first microprocessor is monitored by means of a second resistor with a value less than that of the first resistor, the second resistor being connected between the output of the first microprocessor and a low voltage to ensure the driver controlling the load is off whenever the output of the first microprocessor is in a high resistance state.
- 27. (New) A method according to claim 23 wherein at least one of the microprocessors calculates the current of the load by measuring the voltage across it and, when the load current does not meet pre-determined criteria, switches off the load.
- 28. (New) A method according to clam 23 wherein the control method is applied to a vehicular control system.

29. (New) A method according to claim 23 wherein the load is one of the groups comprising a gear box selector, a clutch selector and a valve.